Engineers
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8 February 1995

OPE30702.EL.PM

Pat Young
American Samoa Project Manager
Office of Pacific Island and Native American Programs
U.S. Environmental Protection Agency, Region 9
75 Hawthorne Street
San Francisco, CA 94105

Dear Pat:

Subject: Response to Comments on Priority Pollutant Monitoring: American Samoa Canneries (Oct 93 and Feb 94 Samples).

We have received and reviewed your comment letter dated January 17, 1995 concerning the chemistry sampling of October 1993 and February 1994 for the American Samoa tuna canneries. I understand that there were no significant discrepancies noted in the review but there were some minor discrepancies in methods referenced and sample documentation. Your review letter was received after the sampling, analysis, and submittal of the October 1994 sample results and we were not able to implement appropriate changes to that report. The EPA comments will be incorporated into the next sampling for the American Samoa canneries, which is scheduled to occur in March 1995. The attached memorandum provides response to your comments and indicates the changes in the sample analysis that will occur in the future testing events. We appreciate the time and effort given to the review of the reports.

Sincerely,

CH2M HILL

Steve Costa
Project Manager

enclosure

cc: Norman Wei, StarKist Foods
James Cox, VanCamp Seafood
Togipa Tausaga, ASEPA
Sheila Wiegman, ASEPA
√Mike Lee, USEPA

MEMORANDUM CH2MHILL

TO: Pat Young/USEPA
Sheila Wiegman/ASEPA

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FROM: Steve Costa/CH2M HILL/SFO
Karen Glatzel/Glatzel & Associates

DATE: 8 February 1995

SUBJECT: Response to Comments on Priority Pollutant Monitoring Reports: American Samoa Tuna Canneries (Oct 93 and Feb 94 Sampling Reports)

PROJECT: OPE30702.EL.PM

This memorandum provides our response to comments from USEPA concerning the priority pollutant monitoring reports for effluent from StarKist Samoa, Inc. (AS0000019) and VCS Samoa Packing Company (AS0000027) for the October 1993 and February 1994 sampling. The comments from U.S. EPA, dated January 17, 1995 are included as Attachment I.

Response to Comment No. 1

The methods used in the February 1994 sampling report are equivalent methods for the analysis of inorganics to those used in the October 1993 report. The difference in the methods is in the calibration verification process. In both methods a continuous calibration verification is conducted. The EPA 200 series test methods used in the October 1993 sampling (used for drinking water and effluent) has a ±5-percent calibration tolerance. The SW-846 test methods used in the February 1994 sampling (for solid waste and effluent) employ a calibration tolerance of ±10-percent. If the calibration verification is within ±5% the SW-846 method results can be reported as series 200 results. The calibration verification tolerance is the only difference between the methods. Since the testing being done is in the nature of a screening level study, in support of the toxicity tests, we do not believe the difference in the test procedures is significant. The results of the tests would not have been significantly or substantially different based on the test method specification. However, if USEPA believes that the 200 series must be used for these tests we will so instruct the laboratory for future tests.

Response to Comment No. 2

The semi-volatile organics in the February 1994 sampling were analyzed using Method 8270 and employing the Method 625 list of constituents. The method used in the February 1994 sampling report are equivalent methods for the analysis of semi-volatile organics as those used in the October 1993 report. The difference in the methods is in the calibration

verification process. In both methods a continuous calibration verification is conducted. The EPA 625 test method used in the October 1993 sampling has a ±10-percent calibration tolerance. The 8270 test method used in the February 1994 sampling employs a calibration tolerance of ±30-percent. If the calibration verification is within ±10-percent the 8270 method results can be reported as 625 method results. The calibration verification tolerance is the only difference between the methods. Since the testing being done is in the nature of a screening level study, in support of the toxicity tests, we do not believe the difference in the test procedures is significant. The results of the tests would not have been significantly or substantially different based on the test method specification. However, if USEPA believes that the 625 method must be used for these tests we will so instruct the laboratory for future tests.

Response to Comment No. 3

We agree that the graphite furnace method will provide better detection levels. However, we note that salt water interference (in the StarKist effluent) may not permit test results to be reported at the levels of the water quality criteria. We will instruct the laboratory to use the graphite furnace methods 220.2 for copper analysis 272.2 silver analysis in future test episodes.

Response to Comment No. 4

The sampling kits for the February 1994 sampling were shipped to American Samoa as checked baggage with the project staff doing the sampling to insure the kits would be available on site. In typical Hawaiian Airlines fashion, the baggage was lost. There were no 40 ml vials available on the island and the volatile organic samples were collected in 300 ml bottles. These were the only appropriate sample containers available in American Samoa at the time. All other sampling protocols were observed with these samples including filling using zero headspace.

Response to Comment No. 5

The date of sampling for the February 1994 samples was between 1000 on 15 February through 0700 on 16 February 1994. For the same reasons explained in the response to comment No. 4 the sampling was delayed by one day but all records were not correctly adjusted. We apologize for this oversight and any confusion this may have caused. We also note the typographical error in the data summary (Table 2) which should indicate 1994 rather than 1993. In addition we note that holding time for semi-volatiles was met if the end time of the composite sample is taken as the sampling time.

Response to Comment No. 6

We make every effort to meet holding times as well as possible. However, shipping from American Samoa presents unique logistical problems, and makes coordination with laboratory schedules difficult at times. The hold time for cyanide was exceed by one day and the laboratory staff assure us that this should make no measurable difference in the validity of the results. We agree with EPA's review comment that the presence of cyanide is highly improbable (and have requested that USEPA consider eliminating this constituent from the testing program). The tests to date certainly indicate no source of cyanide of concern (all tests have been non-detect for both canneries).

We agree that sulphide may be present, but testing for sulphide is not required under 40 CFR 400.15 (the presence sulphide was indicated as positive during the test for cyanide using method 335.2). We feel that the addition of cadmium nitrate as a preservative leads to more problems than it solves (i.e. disposal of cadmium) and there is no way of meeting the 24-hour hold time for a 24-hour composite sample collected in American Samoa. The chance of detecting trace amounts of cyanide, which is not realistically expected, after the DAF treatment of tuna processing wastes is remote and unrealistic. Cyanide is obviously not a constituent of reasonable concern and it has not been detected in the past. The laboratory has suggested that the collection of samples in a narrow mouth glass bottle with no head space would be an alternative approach to improve the testing procedure without adding cadmium nitrate. However, we feel that the evidence and reasonable expectations indicate that this test is not necessary and suggest that USEPA approve our previous request to drop it from the requirements.

ATTACHMENT I

USEPA Comments on Priority Pollutant Testing
17 January 1995

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

JAN 17 1995

Steven L. Costa
Project Manager
CH2M HILL
1111 Broadway, P.O. Box 12681
Oakland, CA 94604-2681

Re: Priority Pollutant Monitoring Data Review Comments
American Samoa Tuna Canneries (Oct. 93 & Feb. 94)

Dear Mr. Costa:

Please find enclosed our review comments of the Priority Pollutant Monitoring Data for the VCS Samoa Packing Company (AS0000027) and StarKist Samoa, Inc.(AS0000019). Our review covers effluent priority pollutant monitoring data collected in October 1993 and February 1994 submitted to us in September 1994.

As mentioned in the enclosure the review primarily focused on evaluation of appropriate methods, detection limits and QA/QC procedures. Although there are no significant discrepancies noted in the review there are some discrepancies noted relating to methods referenced, use of other methods with lower detection limits, sample documentation, etc.

Please review our findings and make the appropriate corrective actions which address the concerns noted in the review prior to the next priority pollutant monitoring. Please also provide a written response within thirty (30) days of the date of receipt of the letter regarding the review findings. If additional response time is necessary, please provide a written request for an extension to the 30-day response time.

If you have any questions regarding this matter, please contact Pat Young at (415) 744-1594 or Mike Lee at (415) 744-1592.

Sincerely,

Norman L. Lovelace
Chief, Office of Pacific Island
and Native American Programs

Enclosure
cc: Norman Wei, StarKist Samoa
James Cox, VCS Samoa Packing
Togipa Tausaga, ASEPA
Sheila Wiegman, ASEPA

ENCLOSURE

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX LABORATORY
1337 S. 46TH STREET
BLDG. 201
RICHMOND, CA 94804-4698

MEMORANDUM

SUBJECT: Review of Priority Pollutant Monitoring Data from American Samoa Canneries (DCN OPIN007094HJF1)

FROM: Peter Husby
Laboratory Section, P-3-1

THRU: Brenda Bettencourt, Chief
Laboratory Section, P-3-1

TO: Patricia Young
OPINAP, E-4

As requested, I have reviewed four reports of priority pollutant monitoring data from VCS Samoa Packing Company and Starkist Samoa, Inc. The reports cover effluent monitoring performed on samples collected in October 1993 and February 1994 at both facilities. The request for review specifically requested an evaluation of whether appropriate methods, detection limits and QA/QC procedures were followed. The following comments resulted from my review:

1) The method numbers referenced for both the October 1993 sampling and the February 1994 sampling are from Test Methods for Evaluating Solid Waste, SW-846. Within the report for the October event, EPA 200 series methods are correctly referenced. However, the method references for the February sampling are incorrect.

2) The organic analysis method references are correct. Reference to both Method 8270 and 625 should be clarified in the Semi-Volatile Organics results for the February samples.

3) The detection limits are generally adequate and reasonable for the organic analyses. For the inorganics, the detection levels are below water quality criteria except for copper and silver. Graphite furnace methods 220.2 for copper and 272.2 for silver would achieve detection levels below criteria.

4) The volatile organic samples for the February sampling were collected in 300 mL bottles, instead of 40 mL vials. I assume they were collected with zero headspace, but was interested in why the change in bottles was made.

5) Some errors in the sample documentation exist. For instance,

the chain-of-custody form and results for the pesticides from February 1994 lists 2/14/94 as the sample date; it should be 2/15-16/94. Despite the change, the hold time was still exceeded. The results for the Starkist samples all note 2/14/94 as the sample date, however, the data summary notes February 15-16,"1993" as the correct date. Since the actual sampling date was 2/15-16/94, the hold time for semi-volatiles, which was reported as missed, was actually met. The minor exceedences of hold times for pesticides should not have significantly affected the data.

6) 14-day hold times for cyanide were missed in the February samples for both facilities. In addition, while I do not anticipate that cyanide would be present in the discharge, it seems reasonable that sulfides may be present. Was lead acetate paper used to test for this, and if so were positive samples treated with cadmium nitrate prior to addition of NaOH? In the presence of sulfides the hold time for cyanide is <24 hours.